

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of SERRE

Application No.

Examiner:

Filed: Herewith

Group Art Unit:

For: METHOD AND DEVICE FOR DETERMINING THE MINIMAL COST BETWEEN
TWO POINTS PATH IN A ROAD NETWORK

SUBMISSION OF COPY OF INTERNATIONAL APPLICATION

Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Please find attached a translation of the International application into English. Please note that the claims attached hereto are for information purposes only, as they were amended under PCT Article 34.

Respectfully submitted,

Dated: 7-8-04



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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference TYC02-B329TR	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/TR 02/00061	International filing date (day/month/year) 03.10.2002	Priority date (day/month/year) 09.04.2002
International Patent Classification (IPC) or both national classification and IPC E01C19/05		
Applicant GENCER, Mehmet Nezir		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 7 sheets, including this cover sheet.
☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 28.10.2003	Date of completion of this report 12.07.2004
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Flores Hokkanen, P Telephone No. +49 89 2399-2525 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/TR 02/00061

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-20 as originally filed

Claims, Numbers

1-9 filed with telefax on 15.03.2004

Drawings, Sheets

1/12-12/12 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/TR 02/00061

5. ☒ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

see separate sheet

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	3-9
	No: Claims	1,2
Inventive step (IS)	Yes: Claims	
	No: Claims	3-9
Industrial applicability (IA)	Yes: Claims	1-9
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item I

Basis of the report

1. The amendments filed with the fax dated 15.03.2004 introduce subject-matter which extends beyond the content of the application as filed, contrary to Article 34(2)(b) PCT. The amendments concerned are the following:
 - 1.1 In independent claim 1, the features regarding a "circular" form of a part of the aggregate storing and classifying mechanism have been deleted. In consequence, they may adopt any form.

In page 17, lines 20-23 of the description the possibility is mentioned of the storing sections having a "new form" to change the number of gradations and storage.

The storing sections, which are mentioned as "circular" throughout the whole application, are also further indicated with the reference sign (6) in the figures (see in particular figures 7, 9, 11 and 12). From this, it is considered that the storing sections, when not actually being circular, have at least consistently on some sides a form resembling that of the segment of a circle. Other sides are, for example, straight, but all are contained within the body 2 which has actually a form as a complete circle, as clearly and undoubtedly disclosed in the application, particularly in the figures mentioned.

In consequence, in the original application, the lack of clarity notwithstanding (see Item V) it is disclosed as essential that at least the body has to have a circular form.

That the body is that of a conventional silo is not mentioned in the claim. Thus, the body may not be forcibly "circular", this feature therefore not being implicit.

- 1.2 In claim 1, the features regarding the arrangement of the corridor means and channel means within the body in a "tree branch like manner" have been deleted, so that they may have any arrangement within the body.

From the description, particularly page 17, line 8 to page 18, line 3 and the corresponding figures it is to be considered that the arrangement of corridor and

channel means is essential to achieve an efficient storing. Moreover, the corridor and channel means unite the storing sections, as clearly and undoubtedly disclosed in page 17, lines 27-30 and the corresponding figures. Thus, the "branched" arrangement (page 17, line 34) of corridors and channels is to be taken as located between the sections (page 17, line 33) and along the height of the sections.

The deleted feature, the lack of clarity notwithstanding (see Item V), is therefore presented as essential so to achieve the technical effect mentioned.

2. Due to the objection mentioned, no examination of the new set of claims can be further carried out. This opinion is then issued considering the claims 1 to 9 as originally filed.

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. The subject-matter of claim 1 is unclear (Article 6 PCT).
 - 1.1 In the claim, a body is mentioned having a plurality of circular sections. However, according to, for example, fig. 11 of the application, no section of the body being circular can be found. Therefore, it is not clear which constructional feature is addressed by the use of the expression "circular sections", which furthermore seems to be essential for the invention.
 - 1.2 It is also mentioned that the circular sections, which are part of the body, are arranged to surround the body. It is not clear how this is to be interpreted as a constructional feature. How is it possible that a part of a body can surround the body, that is, itself at the same time?
 - 1.3 In the claim, corridor means and channel means are mentioned for "distributing and storing" the aggregate. It is not clear how a channel or a corridor allows the storing of aggregate, as they usually only can conduct a certain flow of material.

- 1.4 The expression "tree-branch-like" is unclear, as it does not precisely define how the channel and corridor means are intended actually to be arranged so to achieve the distributing and storing mentioned.
2. The additional features provided by claim 2 are unclear (Article 6 PCT). In fact, claim 2 only states a definition by effect, being it that the circular section "can" be used as a single storing volume, without defining with technical features how this effect is to be concretely achieved.
3. Claim 9 is unclear (Article 6 PCT). It defines a method "according to any of the preceding claims" (that, is, also according to claim 1) and mentions, among others, a secondary crusher, a paddle box, etc. However, such features are not provided in claim 1, so that it is not clear how the claimed method can be carried out by means of the mechanism defined in claim 1.
4. Reference is made to the following document:
D1: FR-A-2 358 966
5. Document D1 is regarded as being the closest prior art to the subject-matter of independent claim 1, and discloses (see in particular fig. 1) an aggregate storing and classifying mechanism with a body having circular sections (for example, sections 7' and 7'') for storing aggregate material of different gradation levels (see page 5, lines 19-22 of D1). Foot means for holding said body are implicit from such a mechanism. Further, corridor means and channel means are provided so to distribute material (for example, conveyor belts) in the body and also discharge mouths and covers for discharging the material (see for example, reference sign 107).

Document D1, the lack of clarity notwithstanding, discloses therefore all the features of claim 1 (Article 33(2) PCT).

6. It is also apparent from the sections 7'', 7' in Fig. 1 of D1 that they can be used as a single storing volume, for which they also have to be filled accordingly.

Document D1, the lack of clarity notwithstanding, discloses therefore the additional features of claim 2.

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/TR02/00061

7. Dependent claims 3 to 9 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, the reasons being as follows:
- Regarding claim 3, to provide a crusher in such a mechanism does not involve an inventive step, as such crushers are well-known in the field of aggregate selection and production.
 - Regarding claim 4, in D1 (Fig. 1) a screen 67 is provided on the upper side of the body.
 - Regarding claim 5, to provide an elevator, also well-known in this technical field, and a filter for dust collection are to be considered as obvious for the skilled person.
 - Regarding claims 6 to 8, they refer to further additional constructional details of the mechanism as are filling mouths, discharge covers with pistons and dust suction pipes, which are all comprised within the skilled person's common practice.
 - Claim 9, the lack of clarity notwithstanding, is directed to the normal, intended use of an aggregate storing and classifying mechanism and does not involve an inventive step.

Amended claims 15.03.2004

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CLAIMS

1. An aggregate storing and classifying mechanism for production of asphalt in plants, comprising a body (2), a screen (3) arranged to the upper side of the body, plurality of foot means (1) for holding the body (2), plurality of discharge mouths (4) and discharge covers (8) for discharging the aggregate material from the body (2) and feeding the aggregate material to conveyors placed under the body (2) through plurality of discharging axis, a paddle box (12), and the aggregate storing and classifying mechanism being in association with an elevator to convey the aggregate material provided by a secondary crusher to the screen (3), characterized in that, in a closed-form structure, the body (2) comprises plurality of sections (6) arranged in the body (2) for storing aggregate material comprising different gradation levels; corridor means (7) and channel means (15) arranged in the body (2) for distributing the aggregate in the body (2) as homogenously.

2. A closed-form aggregate storing and classifying mechanism according to any one of the preceding claims, characterized in that the elevator is in closed form as the aggregate storing and classifying mechanism.

3. A closed-form aggregate storing and classifying mechanism according to claim 2, characterized in that the elevator is a vertical elevator and being in association with a filter system for sucking dust volume of the elevator.

4. A closed-form aggregate storing and classifying mechanism according to any one of the preceding claims, characterized in that the secondary crusher is covered by the paddle box (12).

5. A closed-form aggregate storing and classifying mechanism according to any one of the preceding claims, characterized in that the screen (3) is a vibrating screen and the upper side thereof is covered.

6. A closed-form aggregate storing and classifying mechanism according to any one of the preceding claims, characterized in that pistons (11) operable by mechanically or electronically are provided for opening and closing the discharge covers (8).

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Amended claims 15.03.2004

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7. A closed-form aggregate storing and classifying mechanism according to any one of the preceding claims, characterized in that a paddle box (12) and dust suction pipes (13) are provided for sucking the dust originated in the screen (3), in the crusher and in the body.

8. A closed-form aggregate storing and classifying mechanism according to claim 1, characterized in that the corridor means (7) and the channel means (15) are provided horizontally so that said plurality of sections (6) are united to form a single storing section.

9. A method for storing and classifying of aggregate according to any one of the preceding claims, comprising the following steps of:

crushing of ballast material in the crusher which is covered with the paddle box (12) and connected to a filter system for the absorption of dust,

controlled crushing through which aggregate flow rate, flow speed, gradations and the amount of each gradation are managed with modifications made on the revolution speed of the secondary crusher,

transferring of aggregate material to the closed vertical elevator which is connected to filter system for the absorption of dust,

transferring of aggregates in a vertical position with the vertical elevator to screens (3) of the mechanism,

sieving of aggregate material with screens (3) which are covered with the paddle box and connected to a filter system for the absorption of dust,

directing the flow of aggregates towards inside the mechanism using directing parts and delivering aggregates into storing sections with respect to their gradations,

storing of more than one size (gradation) of aggregates in a completely closed system,

storing of more than one size (gradation) of aggregates by changing (either increasing or decreasing) their quantity when it is required,

absorbing and storing of dust particles which form after secondary crushing without causing them to spread to the environment,

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Amended claims 15.03.2004

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direct discharging or discharging through feeding system (mule system)
of deposited materials from discharge mouths (4) either manually or by
automatic control,

placing of horizontal conveyor bands which can make aggregate transfer
in more than one axis under the mechanism,

placing plurality of discharge mouths (4) along with the same axis for
enabling feeding of two separate asphalt plants situated at two different
directions.

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AMENDED SHEET